DOCUMENT RESUME

ED 220 706 CE 033 802

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TITLE Shock & Anaphylactic Shock. Learning Activity Package.
INSTITUTION California State Dept. of Education, Sacramento. Bureau of Publications.
PUB DATE 82
NOTE 24p.; For related document see CE 033 803. For other documents in the series see CE 033 788-811.
AVAILABLE FROM Bureau of Publications, California Dept. of Education, P. O. Box 271, Sacramento, CA 95802 ($1.75).

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS *Allergy; *Allied Health Occupations Education; Behavioral Objectives; Individualized Instruction; Learning Activities; Learning Modules; *Medical Services; Postsecondary Education; Self Evaluation (Individuals)
IDENTIFIERS *Anaphylactic Shock; *Shock; Symptoms

ABSTRACT

This learning activity package on shock and anaphylactic shock is one of a series of 12 titles developed for use in health occupations education programs. Materials in the package include objectives, a list of materials needed, information sheets, reviews (self evaluations) of portions of the content, and answers to reviews. These topics are covered: causes of shock, signs and symptoms of shock, treatment objectives, sudden or anaphylactic shock, causes of anaphylactic shock, and signs and symptoms of anaphylactic shock. (YLB)

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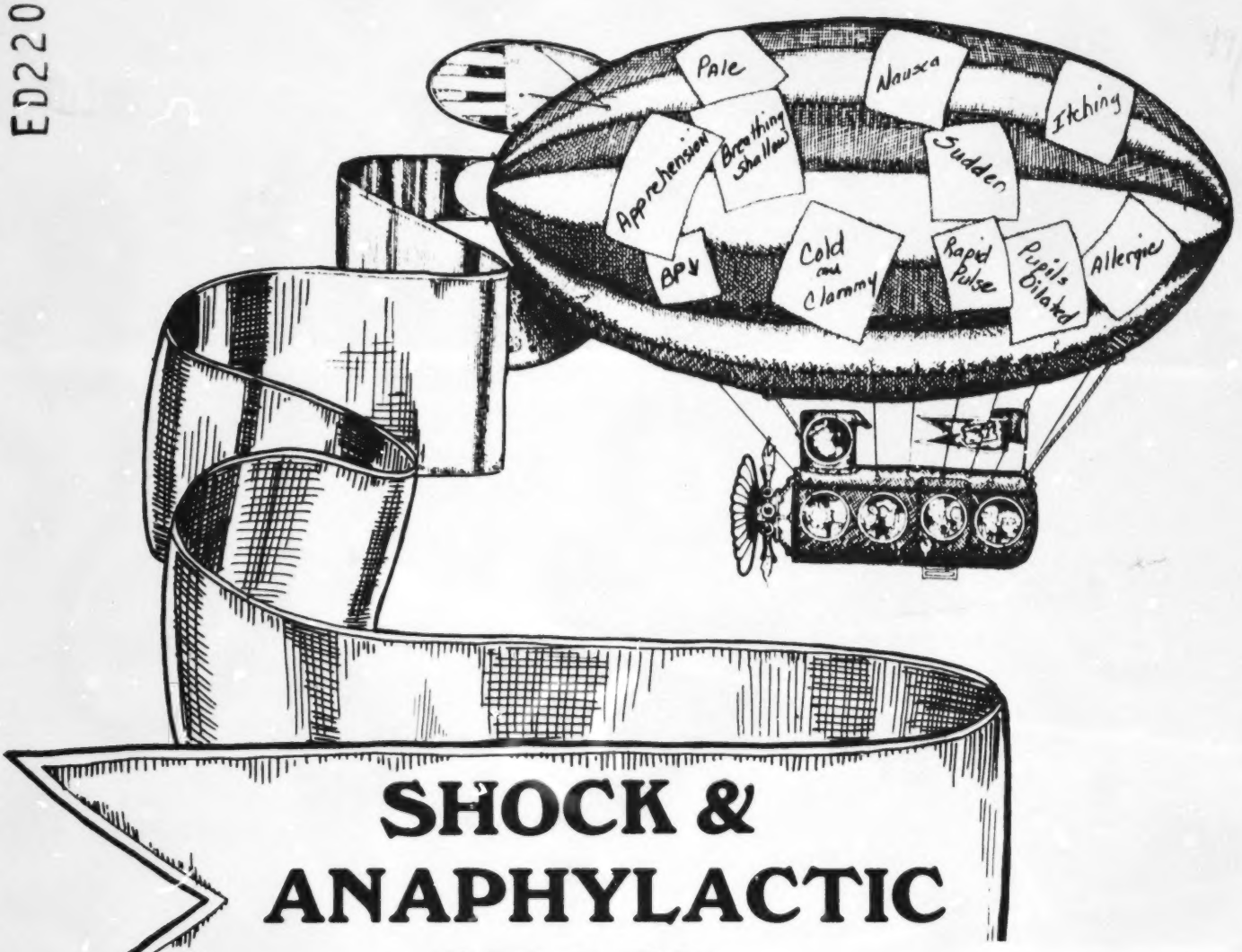

SHOCK & ANAPHYLACTIC SHOCK

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SHOCK & ANAPHYLACTIC SHOCK

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This learning activity package, which was funded under Public Law 94-482 and Public Law 95-40, was prepared and published by the California State Department of Education, 721 Capitol Mall, Sacramento, CA 95814, and distributed under the provisions of the Library Distribution Act.

1982

CONTENTS

	Page
Objectives	1
Materials Needed	1
Shock--What is it	2
Treatment Objectives	9
Sudden Shock or Anaphylactic Shock	12
Causes of Anaphylactic Shock	13
Signs and Symptoms of Anaphylactic Shock	14

OBJECTIVES:

AFTER YOU COMPLETE THIS LAP, YOU WILL BE ABLE TO DO THE FOLLOWING:

1. NAME THE THREE MAJOR CAUSES OF SHOCK.
2. LIST THE EIGHT SIGNS AND SYMPTOMS OF SHOCK.
3. LIST THE FOUR MAJOR CAUSES OF ANAPHYLACTIC SHOCK.
4. NAME SIX SIGNS AND SYMPTOMS OF ANAPHYLACTIC SHOCK.
5. NAME ONE DRUG USED IN THE TREATMENT OF ANAPHYLACTIC SHOCK.

MATERIALS NEEDED:

1. PENCIL OR PEN
2. WORK SHEET*

*BEFORE BEGINNING THE LAP, PICK UP THE WORK SHEET FROM THE INSTRUCTOR.

You have discovered your specialty:

CARING FOR PEOPLE

SHOCK

What is it?

SHOCK IS A TERM WHICH IS USED TO DESCRIBE A CONDITION THAT MAY FOLLOW VIOLENCE AND MILD OR SERIOUS INJURY.

SHOCK IS A CONDITION OF GREATEST WEAKNESS OF THE BODY.

SHOCK IS A LACK OF BLOOD CIRCULATING THROUGH THE BODY.

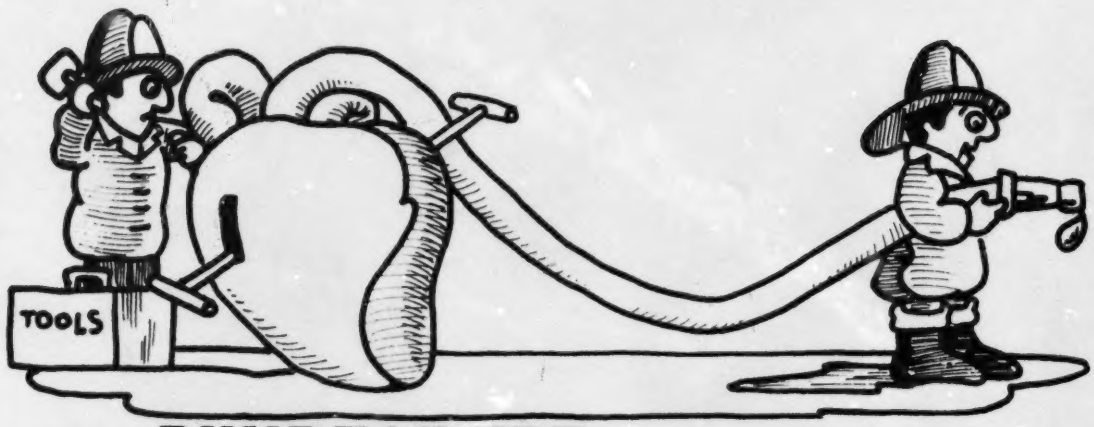
SHOCK IS CAUSED BY THE FOLLOWING:

1. BLOOD VESSELS DILATING SO WIDELY (PERIPHERAL VASCULAR COLLAPSE) THAT THE BLOOD SUPPLY FAILS TO FILL THE CIRCULATORY SYSTEM COMPLETELY

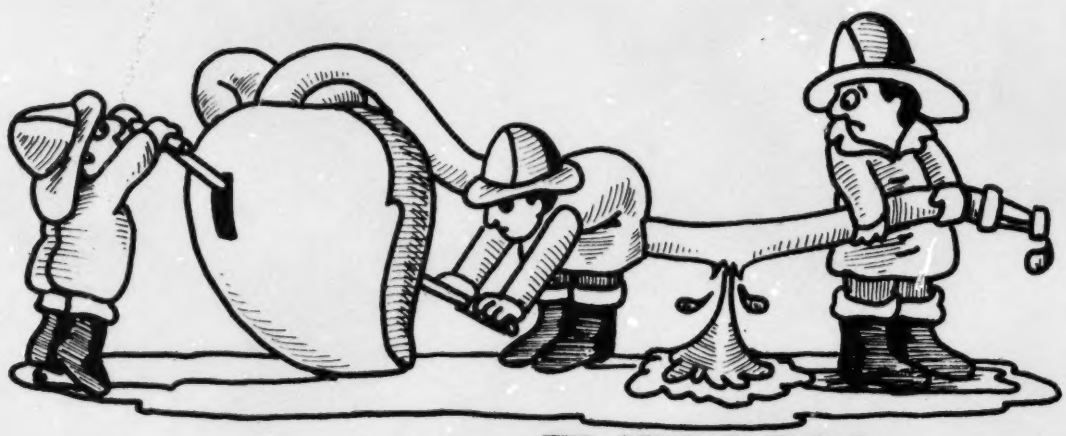
2. LOSS OF BLOOD

3. THE HEART'S FAILURE TO CIRCULATE THE BLOOD PROPERLY

AGAIN THE CAUSES:



PUMP FAILURE



FLUID LOSS

PERIPHERAL VASCULAR COLLAPSE

WHAT HAPPENS TO THE BODY WHEN SHOCK OCCURS?

1. THE BODY HAS A WONDERFUL MECHANISM FOR CLOSING OFF BLOOD VESSELS TO THOSE AREAS WHICH DO NOT NEED BLOOD URGENTLY, SUCH AS SKIN AND MUSCLES, THUS SAVING BLOOD FOR IMPORTANT ORGANS LIKE THE HEART AND BRAIN.

2. IF A PERSON DEVELOPS SHOCK AND STAYS IN SHOCK, DEATH MAY RESULT, EVEN THOUGH THE INJURY THAT CAUSED SHOCK MAY NOT BE FATAL.

3. SHOCK SHOULD BE **ANTICIPATED**.

4. **PREVENTION** IS BEST REMEDY.

SIGNS AND SYMPTOMS OF SHOCK ARE AS FOLLOWS:

1. RAPID, WEAK PULSE--HEART IS BEATING VERY FAST TO KEEP ENOUGH BLOOD PUMPING THROUGH THE BODY

2. COOL, PALE, CLAMMY SKIN--BLOOD IS BEING HELD INTERNALLY FOR THE VITAL ORGANS OF THE BODY

3. EXCESSIVE THIRST--FROM RAPID LOSS OF FLUID

4. RESTLESSNESS AND APPREHENSION, WHICH LATER DEVELOPS INTO MENTAL CONFUSION, APATHY, AND UNCONSCIOUSNESS--LACK OF OXYGEN DUE TO DECREASED CIRCULATION

5. SHALLOW AND IRREGULAR BREATHING--LACK OF OXYGEN DUE TO DECREASED CIRCULATION

6. VACANT, DULL EYES--A SIGN OF DECREASED CIRCULATION

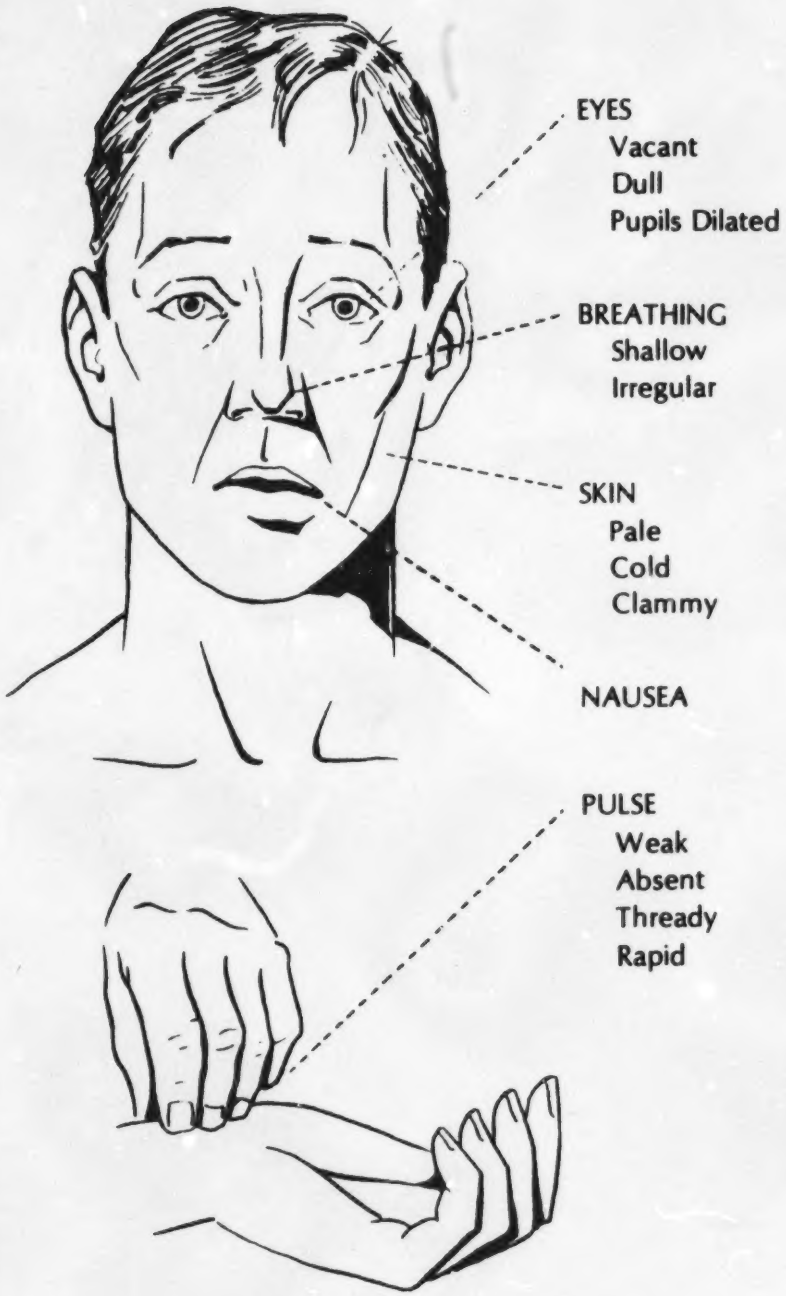
7. NAUSEA AND VOMITING

8. PUPILS DILATED--A SIGN OF DECREASED CIRCULATION

SYMPTOMS OF SHOCK MAY INCLUDE SOME OR ALL OF THE ABOVE!!!

REMINDER

LOOK FOR THESE SIGNS!



REVIEW I.

1. NAME THE THREE MAJOR CAUSES OF SHOCK.

   _____

   _____

   _____

2. SHOCK SHOULD BE _____.

3. _____ IS THE BEST REMEDY.

4. LIST THE SIGNS AND SYMPTOMS OF SHOCK.

   A.
   B.
   C.
   D.
   E.
   F.
   G.
   H.

CHECK THE ANSWERS ON THE NEXT PAGE.

ALL CORRECT?

YOU ARE DOING GREAT!!!!!

CONTINUE ON

IF YOU MISSED SOME ANSWERS, REVIEW IS NECESSARY.

REVIEW 1. ANSWER KEY:

1. A. BLOOD VESSELS ARE DILATED SO THAT THE BLOOD SUPPLY FAILS TO FILL THE SYSTEM (PUMP FAILURE).

   B. THERE IS BLOOD LOSS (FLUID LOSS).

   C. THE HEART FAILS TO CIRCULATE THE BLOOD (PERIPHERAL VASCULAR COLLAPSE).

2. ANTICIPATED

3. PREVENTION

4. A. RAPID, WEAK PULSE
   B. COOL, PALE, CLAMMY SKIN
   C. EXCESSIVE THIRST
   D. APPREHENSION
   E. SHALLOW, IRREGULAR BREATHING
   F. NAUSEA AND VOMITING
   G. VACANT, DULL EYES
   H. PUPILS DILATED

TREATMENT OBJECTIVES

- TO IMPROVE CIRCULATION OF THE BLOOD
- TO ENSURE AN ADEQUATE SUPPLY OF OXYGEN
- TO MAINTAIN NORMAL BODY TEMPERATURE

Treatment for shock takes priority over all other emergency care measures except for the correction of breathing problems, the re-establishment of circulation, and the control of bleeding.

CARE FOR THE WHOLE PATIENT

1. ENSURE ADEQUATE BREATHING.

If the patient is breathing, maintain an adequate airway by properly positioning his or her head. If the patient is not breathing, establish an airway and restore breathing through some means of pulmonary resuscitation. If both respiration and circulation have stopped, institute cardiopulmonary resuscitation.

2. CONTROL BLEEDING.

If the patient has external bleeding, apply direct pressure to the wound.

3. ADMINISTER OXYGEN AS DIRECTED BY IMMEDIATE SUPERVISOR.

REMEMBER THAT OXYGEN DECREASES AS A RESULT OF REDUCED CIRCULATION.

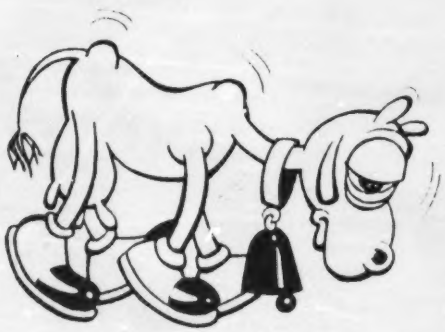
4. ELEVATE THE LOWER EXTREMITIES.

Since blood flow to the heart and brain may have been diminished, circulation can be improved by raising the legs slightly. It is NOT recommended that the entire body be tilted down at the head, since the abdominal organs pressing against the diaphragm may cause breathing difficulty. Exceptions to the rule of raising the feet are cases of head and chest injuries.

Whenever there is any doubt as to the best position, the patient may be laid flat without harmful effects.

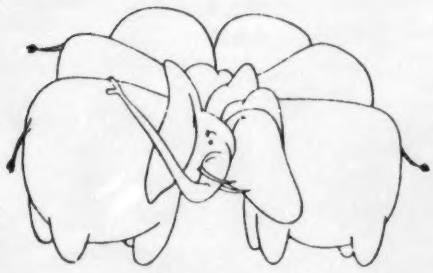
5. AVOID ROUGH HANDLING.

Handle the patient as gently and as little as possible. Body motion has a tendency to aggravate shock conditions.



6. PREVENT THE LOSS OF BODY HEAT.

Keep the patient warm, but guard against overheating, which can aggravate shock. Remember to place a blanket under the patient as well as over him or her to prevent loss of heat.



7. KEEP THE PATIENT LYING DOWN.

This practice avoids overworking the circulatory system at a time when it should be at rest. However, some patients with heart disorders will have to be moved in a semisitting position.

8. GIVE NOTHING BY MOUTH.

The patient may choke on anything given orally.

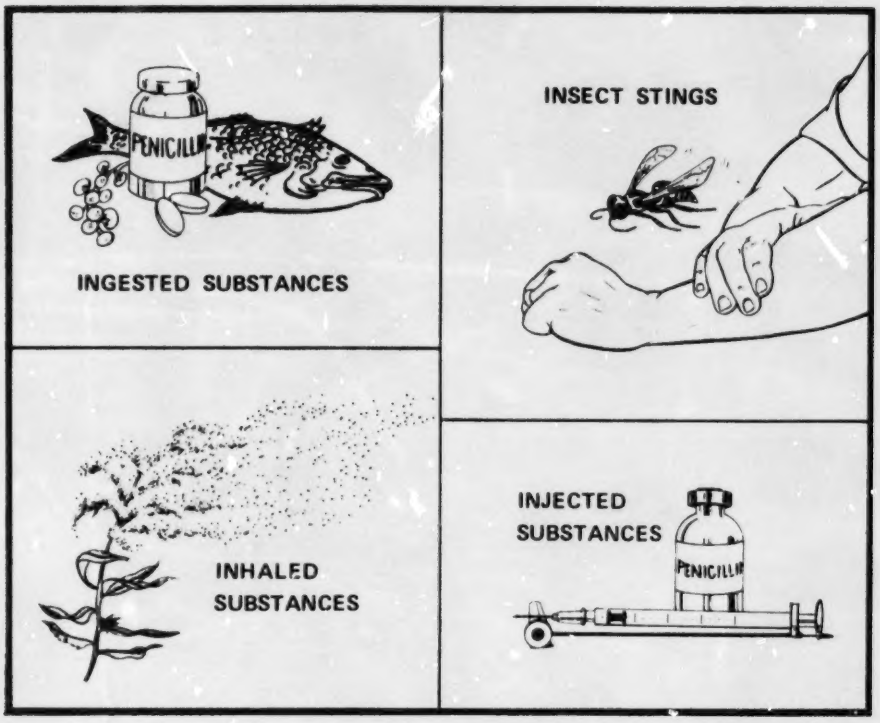
SUDDEN SHOCK or ANAPHYLACTIC SHOCK

ANAPHYLACTIC SHOCK IS CONSIDERED A TRUE EMERGENCY. ANAPHYLACTIC REACTIONS OCCUR WHEN A PERSON COMES IN CONTACT WITH SOMETHING TO WHICH HE OR SHE IS VERY ALLERGIC.

LISTED BELOW ARE SOME OF THE SUBSTANCES THAT CAN CAUSE A VIOLENT ALLERGIC REACTION IN A SENSITIZED PERSON.

- INSECT STINGS: BEES, YELLOW JACKETS, WASPS, AND HORNETS
- INGESTED SUBSTANCES: CERTAIN FISH, SHELLFISH, BERRIES, AND ORAL DRUGS SUCH AS PENICILLIN
- INHALED SUBSTANCES: DUST AND POLLEN
- INJECTED SUBSTANCES: DRUGS SUCH AS PENICILLIN

CAUSES OF ANAPHYLACTIC SHOCK



THE HEALTH PROFESSIONAL SHOULD BE AWARE THAT AN ANAPHYLACTIC REACTION MAY OCCUR WITHIN A FEW SECONDS AFTER EXPOSURE TO AN ALLERGIC SUBSTANCE. THUS, PROMPT RECOGNITION AND TREATMENT OF THE PROBLEM ARE OF VITAL IMPORTANCE.

YOU'RE ALMOST THERE...

SIGNS AND SYMPTOMS OF ANAPHYLACTIC SHOCK

- o **ITCHING** OR BURNING SKIN, ESPECIALLY ABOUT THE CHEST AND FACE (FACE AND NECK MAY LOOK FLUSHED)
- o **HIVES** OVER AREAS OF THE BODY
- o **SWELLING** OF THE FACE AND TONGUE
- o **CYANOSIS** VISIBLE AT THE LIPS (BLUE COLOR)
- o **TIGHTENING** OR PAIN IN THE CHEST, WHEEZING, AND DIFFICULTY IN BREATHING
- o **WEAK** PULSE, DIZZINESS, AND FAINTNESS OR EVEN COMA

ANAPHYLACTIC SHOCK IS A TRUE EMERGENCY BECAUSE IT REQUIRES INJECTION OF MEDICATION TO COMBAT THE ALLERGIC REACTION. INITIAL EMERGENCY CARE SHOULD BE DIRECTED TOWARDS LIFE SUPPORT.

GET THE PATIENT TO A HOSPITAL IMMEDIATELY. PROVIDE LIFE-SUPPORT MEASURES AS REQUIRED. INCLUDE CPR, GIVE OXYGEN, AND TREAT FOR SHOCK.

THE TREATMENT IS THE SAME FOR SHOCK AS WELL AS ANAPHYLACTIC SHOCK WITH ONE EXCEPTION---MEDICATION HAS TO BE GIVEN IMMEDIATELY.

THE MEDICATIONS MOST OFTEN USED ARE:

ADRENALIN (EPINEPHRINE)
BENADRYL (DIPHENHYDRAMINE)
AMINOPHYLLINE

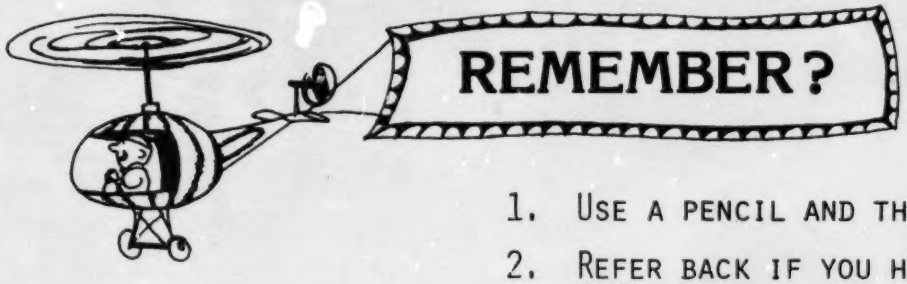
WHAT THEY DO:

1. ADRENALIN - INCREASES THE FORCE OF HEART CONTRACTION, THEREBY INCREASING CARDIAC OUTPUT. SMALL DOSES INCREASE THE BLOOD PRESSURE.

2. BENADRYL - THIS DRUG STOPS ITCHING AND REDUCES SWELLING OF THE MUCOUS MEMBRANE.

3. AMINOPHYLLINE - THIS DIURETIC/RELAXANT HELPS TO RELAX THE BRONCHIAL MUSCLES AND STIMULATE THE HEART MUSCLE.

REVIEW II.



1. USE A PENCIL AND THE WORK SHEET.
2. REFER BACK IF YOU HAVE ANY QUESTIONS.

1. THE PRIMARY JOB IN TREATMENT OF SHOCK IS TO CARE FOR THE _____ PATIENT.

2. IF THE PATIENT IS IN SHOCK, SHOULD HE OR SHE BE GIVEN ANYTHING TO DRINK? _____ YES _____ NO

3. ANAPHYLACTIC SHOCK OCCURS _____.

4. WHAT ARE THE FOUR MAJOR CAUSES OF ANAPHYLACTIC SHOCK?
   A.
   B.
   C.
   D.

5. NAME SIX SIGNS AND SYMPTOMS OF ANAPHYLACTIC SHOCK.
   A.
   B.
   C.
   D.
   E.
   F.

6. NAME ONE OF THE DRUGS COMMONLY USED IN THE TREATMENT OF ANAPHYLACTIC SHOCK.
   A.

REVIEW II. ANSWER KEY:

1. WHOLE

2. NO

3. SUDDENLY, WITHIN SECONDS, QUICKLY

4. MAJOR CAUSES OF ANAPHYLACTIC SHOCK ARE:

   INSECT STINGS
   INGESTED SUBSTANCES
   INHALED SUBSTANCES
   INJECTED SUBSTANCES

5. SIGNS AND SYMPTOMS ARE:

   ITCHING
   HIVES
   SWELLING (EDEMA)
   CYANOSIS (BLUE)
   TIGHTENING OF CHEST, DIFFICULTY BREATHING
   WEAK OR NO PULSE

6. DRUGS USED:

   ADRENALIN
   BENADRYL
   AMINOPHYLLINE

Well Done

SEE YOUR INSTRUCTOR FOR THE FINAL ACHIEVEMENT REVIEW.

AFTER YOU COMPLETE THIS SECTION AND PASS THE FINAL ACHIEVEMENT REVIEW, YOU WILL RECEIVE A CERTIFICATE FOR SHOCK AND ANAPHYLACTIC SHOCK.

YOU HAVE DONE

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